

*Atty Docket: 2003-IP-009806 U1 (1391-43800)**Patent*

REMARKS

At the time of the office action of September 22, 2005, claims 1-25 were pending in the present patent application. Claims 1, 2, 13, 14, 16, 18, and 19 have been rejected on various grounds discussed below. Claims 4-11 and 17 were objected to because of informalities in dependency. Claims 4 has been amended to depend from claim 3 and claim 17 has been amended to depend from claim 15. Claims 3-12, 15, 17, and 20-25 were objected to and indicated to be allowable if rewritten in independent form. Reconsideration is requested in view of the following remarks.

Specification

1. The abstract of the disclosure was objected to because the word "said" is stated in line 9. Correction was required.

The abstract and the specification have been reviewed manually and by word searching, and the word "said" was not found. Applicants request that the Examiner identify the location of the word "said" so that it may be corrected.

2. The Examiner also included rules for proper language and format of the abstract. The abstract has been reviewed and found to have 108 words and is believed to otherwise meet the requirements.

Claim Objections

3. Claims 4-11 and 17 were objected to because of informalities.

Atty Docket: 2003-IP-009806 U1 (1391-43800)

Patent

Claim 4 includes the term “the second wedge” which has no antecedent basis in claim 1, but does have antecedent basis in claim 3. Claim 4 has been amended to depend from claim 3 instead of claim 1.

Claim 17 includes the term “the third wedge”, but there is no antecedent basis for a first and a second wedge in claim 13 or claim 17. Claim 17 has been amended to depend from claim 15 which provides antecedent basis for a first and a second wedge.

Claim Rejections – 35 USC § 102

4. Claims 1, 2, 13, 14, 16, 18 and 19 were rejected as being anticipated by each of the Patents US 4,754,812, US 4,018,272, and US 3,722,588.

Rejections based on US'812:

With reference to claim 1, the examiner asserts that US'812 discloses an apparatus operatively positionable with a subterranean well comprising: a mandrel; a double acting slip 35 and a single acting slip disposed relative to the mandrel, the double acting slip 35 being axially spaced apart from the single acting slip; and a seal element carried on the mandrel.

The Applicants submit that US'812 does not teach or suggest a single acting slip in addition to a double acting slip. Since there is no single acting slip, it cannot be spaced apart from the double acting slip. Attachment B is a simplified drawing of the apparatus disclosed by US'812. It is a relatively conventional packer with one double acting slip 35 positioned below a seal 50. Nowhere in the drawings or specification of US'812 is there shown a separate spaced apart single acting slip.

*Atty Docket: 2003-IP-009806 U1 (1391-43800)**Patent*

In view of these substantial differences from US'812, the applicants submit that claim 1 and dependent claim 2 are patentable in view of US'812.

With reference to claim 13, the examiner asserts that US'812 discloses an apparatus that includes a packer settable within a tubular structure, the packer comprising: a mandrel; first and second axially spaced apart slips 35 (and ?) disposed relative to the mandrel, the first and second slips being radially outwardly extendable into gripping engagement with the tubular structure when the packer is set therein, the first slip resisting a load applied to the mandrel in a first axial direction, and the second slip resisting another load applied to the mandrel in a second direction opposite to the first direction; a seal element carried about the mandrel, the seal element being outwardly extendable into sealing engagement with the tubular structure when the packer is set therein, a pressure differential in the first axial direction applied to the seal element being resisted by the second slip.

The Applicants submit that US'812 does not teach first and second axially spaced apart slips. US'812 teaches only one double acting slip.

In addition, US'812 does not teach the load separation between slips that is taught by the present disclosure and covered by claim 13. This load separation can be better understood with reference to Attachment A that provides a simplified drawing of the embodiment of Figs. 5A – 5D. Claim 13 includes two slips 16 and 22 and a seal element 18. The first slip 22 resists a load on the mandrel in a first direction, in this case indicated as upward. The second slip 16, upper portion teeth 28, resists a load on the mandrel in a second direction, in this case downward. A pressure differential on the seal 18 in the first direction, i.e. upward, is resisted by the second slip, lower portion teeth 30. This load separation is described in paragraphs 56-57 of the present specification.

*Atty Docket: 2003-IP-009806 U1 (1391-43800)**Patent*

As noted therein, an extreme force upward is less likely to damage the casing 124, because the upward force on the mandrel is resisted by a different slip than the upward force on the seal 18 and are resisted at spaced apart locations on the casing 124.

Reference to Attachment B will illustrate that US'812 does not teach such load separation and cannot provide such load separation. As noted above, it is clear that US'812 provides only one slip 35 and cannot distribute load to two spaced apart slips.

It is possible that the Examiner is equating one double acting slip with two slips. If so, the two slips would not be considered spaced apart in the context of the present invention. Assuming that this is the Examiner's position and for purposes of argument only, the lower half of double acting slip 35 has been labeled as a 1st slip and the upper half of double acting slip 35 has been labeled as a 2nd slip. If a force is applied to the mandrel in the upward direction, indicated as the 1st direction, it will be resisted by the 1st slip. If a force is applied to the seal 50 in the 1st direction, it will be transferred through the mandrel to the 1st slip. Likewise, if downward forces, i.e. 2nd direction, are applied to both the mandrel and the seal 50, they will be resisted by the 2nd slip. Thus, the combined mandrel and seal forces in either direction are resisted by the same half of the double acting slip 35 and therefore applied to the casing at exactly the same point, not at spaced apart points.

In view of the substantial differences between claim 13 and the teachings of US'812, the Applicants submit that claim 13 and dependent claims 14 and 16 are patentable over US'812.

With reference to claim 18, the examiner asserts that US'812 discloses a method that includes a method of securing an apparatus within a tubular structure disposed in a subterranean well, the method comprising the steps of: disposing a double acting slip and a single acting slip

Atty Docker: 2003-IP-009806 U1 (1391-43800)

Patent

axially spaced apart on the apparatus; positioning the apparatus within the tubular structure; radially outwardly extending the double acting slip and the single acting slip, each of the double acting slip and the single acting slip grippingly engaging the tubular structure; and radially outwardly extending a circumferential seal element into sealing engagement with the tubular structure.

As noted above, US'812 teaches only one double acting slip. It does not disclose a single acting slip. It therefore cannot teach disposing a single acting slip on the apparatus. It cannot teach disposing a single acting slip axially spaced apart from the double acting slip.

In view of these substantial missing elements of US'812, the Applicants submit that claim 18 and dependent claim 19 are patentable over US'812.

Rejections based on US'272:

With reference to claim 1, the examiner asserts that US'272 discloses an apparatus operatively positionable with a subterranean well comprising: a mandrel 11; a double acting slip and a single acting slip disposed relative to the mandrel, the double acting slip 15 being axially spaced apart from the single acting slip; and a seal element 12-14 carried on the mandrel.

The Applicants submit that US'272 does not teach or suggest a single acting slip in addition to a double acting slip. Since there is no single acting slip, it cannot be spaced apart from the double acting slip. Attachment C is a simplified drawing of the apparatus disclosed by US'272. It includes one double acting slip 15 positioned between an upper seal 13 and a lower seal 14. Nowhere in the drawings or specification of US'272 is there shown a separate spaced apart single acting slip.

Atty Docket: 2003-IP-009806 U1 (1391-43800)

Patent

In view of these substantial differences from US'272, the applicants submit that claim 1 and dependent claim 2 are patentable in view of US'272.

With reference to claim 13, the examiner asserts that US'272 discloses an apparatus that includes a packer 10 settable within a tubular structure, the packer comprising: a mandrel 11; first and second axially spaced apart slips 15 (and ?) disposed relative to the mandrel, the first and second slips being radially outwardly extendable into gripping engagement with the tubular structure when the packer is set therein, the first slip resisting a load applied to the mandrel in a first axial direction, and the second slip resisting another load applied to the mandrel in a second direction opposite to the first direction; a seal element carried about the mandrel, the seal element being outwardly extendable into sealing engagement with the tubular structure when the packer is set therein, a pressure differential in the first axial direction applied to the seal element being resisted by the second slip.

The Applicants submit that US'272 does not teach first and second axially spaced apart slips. US'272 teaches only one double acting slip.

In addition, US'272 does not teach the load separation between slips that is taught by the present disclosure and covered by claim 13. This load separation can be better understood with reference to Attachment A, as discussed above.

Reference to Attachment C will illustrate that US'272 does not teach such load separation and cannot provide such load separation. As noted above, it is clear that US'272 provides only one slip 15 and cannot distribute load to two spaced apart slips.

It is possible that the Examiner is equating one double acting slip with two slips. If so, the two slips would not be considered spaced apart in the context of the present invention. Assuming

*Atty Docket: 2003-IP-009806 U1 (1391-43800)**Patent*

that this is the Examiner's position and for purposes of argument only, the lower half of double acting slip 15 has been labeled as a 1st slip and the upper half of double acting slip 15 has been labeled as a 2nd slip. If a force is applied to the mandrel in the upward direction, indicated as the 1st direction, it will be resisted by the 1st slip. If a force is applied to either seal 13 or 14 in the 1st direction, it will be transferred through the mandrel or directly to the 1st slip. Likewise, if downward forces, i.e. 2nd direction, are applied to both the mandrel and the seals 13, 14, they will be resisted by the 2nd slip. Thus, the combined mandrel and seal forces in either direction are resisted by the same half of the double acting slip 15 and therefore applied to the casing at exactly the same point, not at spaced apart points.

In view of the substantial differences between claim 13 and the teachings of US'272, the Applicants submit that claim 13 and dependent claims 14 and 16 are patentable over US'272.

With reference to claim 18, the examiner asserts that US'272 discloses a method that includes a method of securing an apparatus within a tubular structure disposed in a subterranean well, the method comprising the steps of: disposing a double acting slip and a single acting slip axially spaced apart on the apparatus; positioning the apparatus within the tubular structure; radially outwardly extending the double acting slip and the single acting slip, each of the double acting slip and the single acting slip grippingly engaging the tubular structure; and radially outwardly extending a circumferential seal element into sealing engagement with the tubular structure.

As noted above, US'272 teaches only one double acting slip. It does not disclose a single acting slip. It therefore cannot teach disposing a single acting slip on the apparatus. It cannot teach disposing a single acting slip axially spaced apart from the double acting slip.

Atty Docket: 2003-IP-009806 U1 (1391-43800)

Patent

In view of these substantial missing elements of US'272, the Applicants submit that claim 18 and dependent claim 19 are patentable over US'272.

Rejections based on US'588:

With reference to claim 1, the examiner asserts that US'588 discloses an apparatus operatively positionable with a subterranean well comprising: a mandrel 27; a double acting slip 163, 79 and a single acting slip disposed relative to the mandrel, the double acting slip being axially spaced apart from the single acting slip; and a seal element 31 carried on the mandrel.

The Applicants submit that US'588 does not teach or suggest a single acting slip in addition to a double acting slip. Since there is no single acting slip, it cannot be spaced apart from the double acting slip. Attachment B is a simplified drawing of the US'812 reference but is also equivalent to the apparatus disclosed by US'588. It includes one double acting slip positioned below a seal. Nowhere in the drawings or specification of US'588 is there shown or described a separate spaced apart single acting slip.

In view of these substantial differences from US'588, the applicants submit that claim 1 and dependent claim 2 are patentable in view of US'588.

With reference to claim 13, the examiner asserts that US'588 discloses an apparatus that includes a packer 11 settable within a tubular structure, the packer comprising: a mandrel 27; first and second axially spaced apart slips 163, 79 disposed relative to the mandrel, the first and second slips being radially outwardly extendable into gripping engagement with the tubular structure when the packer is set therein, the first slip resisting a load applied to the mandrel in a first axial direction, and the second slip resisting another load applied to the mandrel in a second direction

Atty Docket: 2003-IP-009806 U1 (1391-43800)

Patent

opposite to the first direction; a seal element 31 carried about the mandrel, the seal element being outwardly extendable into sealing engagement with the tubular structure when the packer is set therein, a pressure differential in the first axial direction applied to the seal element being resisted by the second slip.

The Applicants submit that US'588 does not teach first and second axially spaced apart slips. US'588 teaches only one double acting slip.

In addition, US'588 does not teach the load separation between slips that is taught by the present disclosure and covered by claim 13. This load separation can be better understood with reference to Attachment A, as discussed above.

Reference to Attachment B will illustrate that US'588 does not teach such load separation and cannot provide such load separation. As noted above, it is clear that US'588 provides only one slip and cannot distribute load to two spaced apart slips.

It is possible that the Examiner is equating one double acting slip with two slips. If so, the two slips would not be considered spaced apart in the context of the present invention. Assuming that this is the Examiner's position and for purposes of argument only, the lower half of the double acting slip has been labeled as a 1st slip and the upper half of the double acting slip has been labeled as a 2nd slip. If a force is applied to the mandrel in the upward direction, indicated as the 1st direction, it will be resisted by the 1st slip. If a force is applied to the seal in the 1st direction, it will be transferred through the mandrel to the 1st slip. Likewise, if downward forces, i.e. 2nd direction, are applied to both the mandrel and the seal, they will be resisted by the 2nd slip. Thus, the combined mandrel and seal forces in either direction are resisted by the same half of the double acting slip and therefore applied to the casing at exactly the same point, not at spaced apart points.

Atty Docket: 2003-IP-009806 U1 (1391-43800)

Patent

In view of the substantial differences between claim 13 and the teachings of US'588, the Applicants submit that claim 13 and dependent claims 14 and 16 are patentable over US'588.

With reference to claim 18, the examiner asserts that US'588 discloses a method that includes a method of securing an apparatus within a tubular structure disposed in a subterranean well, the method comprising the steps of: disposing a double acting slip and a single acting slip axially spaced apart on the apparatus; positioning the apparatus within the tubular structure; radially outwardly extending the double acting slip and the single acting slip, each of the double acting slip and the single acting slip grippingly engaging the tubular structure; and radially outwardly extending a circumferential seal element into sealing engagement with the tubular structure.

As noted above, US'588 teaches only one double acting slip. It does not disclose a single acting slip. It therefore cannot teach disposing a single acting slip on the apparatus. It cannot teach disposing a single acting slip axially spaced apart from the double acting slip.

In view of these substantial missing elements of US'588, the Applicants submit that claim 18 and dependent claim 19 are patentable over US'588.

Allowable Subject Matter

5. The Examiner has indicated that claims 3-12, 15, 17, and 20-25 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. In addition, the corrections must be made to claims 4-11 and 17 as noted in paragraph 3 of the office action in order to be allowable.

Atty Docket: 2003-IP-009806 U1 (1391-43800)***Patent***

As noted above, the corrections to claims 4-11 and 17 have been made. Since the independent claims have been shown to be patentable over the cited references, the Applicants submit that claims 3-12, 15, 17, and 20-25 should be allowable as dependent claims.

*Atty Docket: 2003-IP-009806 U1 (1391-43800)**Patent***CONCLUSION**

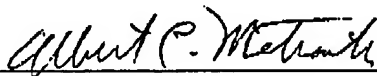
Consideration of the foregoing amendments and remarks, reconsideration of the application, and withdrawal of the rejections and objections is respectfully requested by Applicants. No new matter is introduced by way of the amendment. It is believed that each ground of rejection raised in the Office Action dated September 22, 2005 has been fully addressed. If any fee is due as a result of the filing of this paper, please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C., Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefore.

If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, the Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,
CONLEY ROSE, P.C.

Date: 12-20-05

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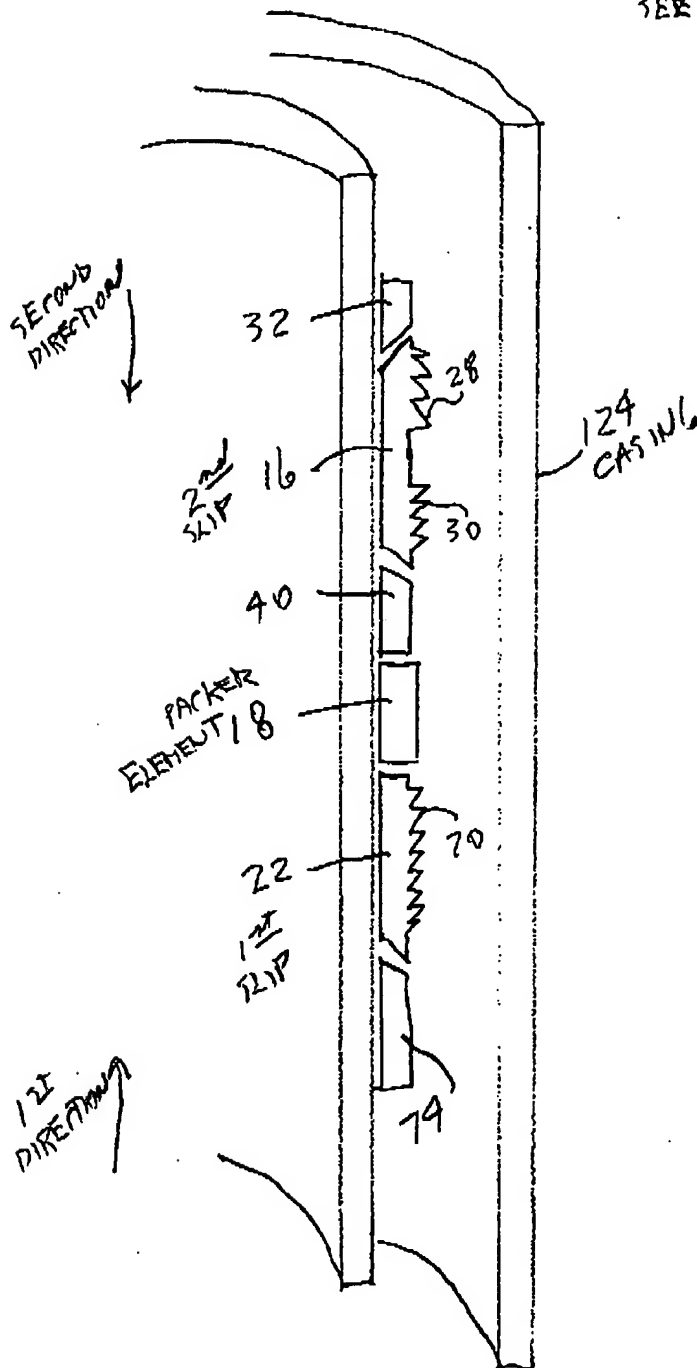

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ATTORNEY FOR APPLICANT

ATTACHMENT A

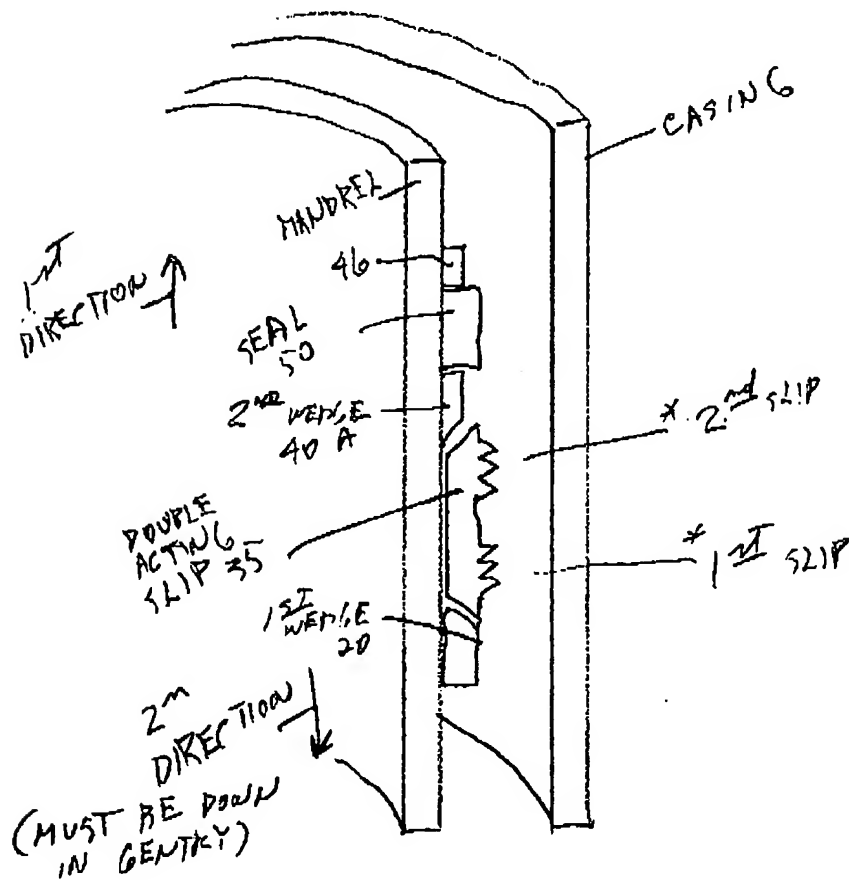
SIMPLIFIED DRAWING OF INVENTION (FIGS. 5A-5D)

SEE PAGES. 56-57



ATTACHMENT B

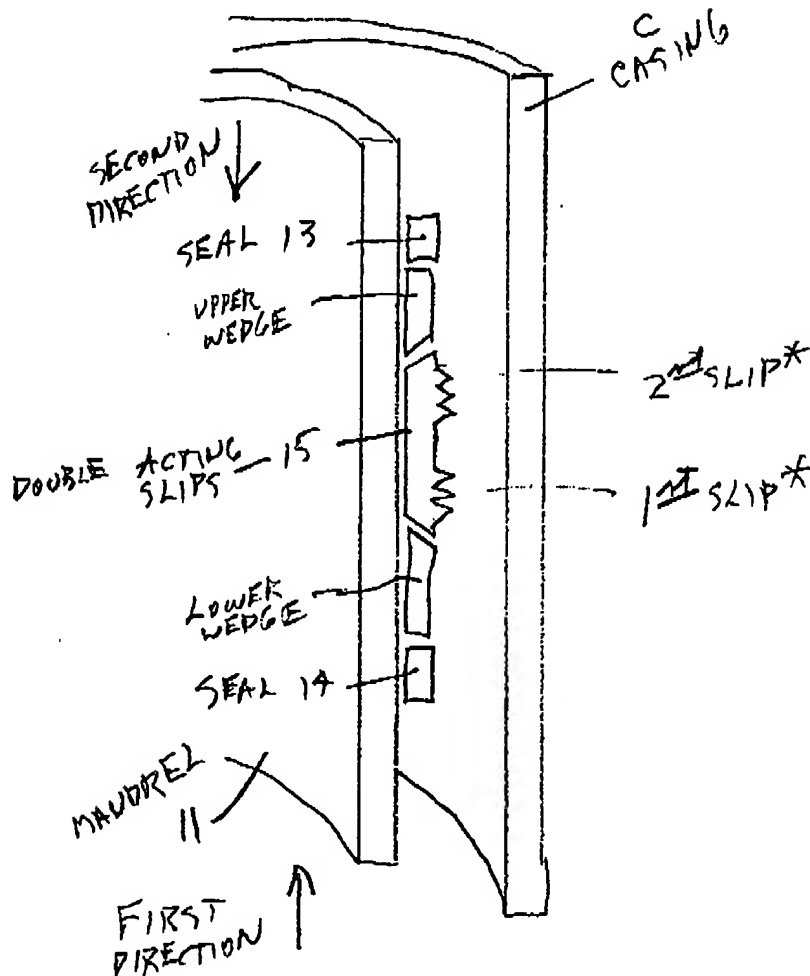
SIMPLIFIED DRAWING OF GENTRY 4,754,812
(ALSO FOR TAMPLIN 3,722,588)



* ASSUMING A DOUBLE ACTING SLIP
CAN BE CONSIDERED TWO SLIPS
FOR ARGUMENT ONLY

ATTACHMENT C

SIMPLIFIED DRAWING OF BROWN 4,018,272



* ASSUMING A DOUBLE ACTING SLIP CAN
BE CONSIDERED TWO SLIPS FOR
ARGUMENT ONLY